



Unit 2- Network Forensics Investigation

Tia C

CMP 416 – Digital Forensics 2

Contents

Aim of investigation	3
Tools Used During Investigation	3
Investigation of Capture 1	4
Investigation of Capture 2	9
Investigation of Capture 3	11
Investigation of Capture 4	14
References	16
Appendix	17
Appendix A – Documents.zip files	17
Appendix B – Raw dump of messages sent in Capture 2	17
Appendix C – IRC Conversations	17
Appendix D – Sent Images	17
Appendix E – Evidence of communication between Ann and Ill-Song.....	17

Aim of investigation

The investigator is working on an international sporting competition corruption case through their national security agency. They have been asked to recover any evidence and other relevant information from network captures gathered by the agency. The process of this investigation for each of the captures has been documented thoroughly and has been carried out in such a way that it could be recreated if necessary. Forensic integrity has been considered in each phase using read-only evidence folders and hashes were generated and compared when necessary.

Tools Used During Investigation

Name of Tool	Description of Tool
Wireshark	Wireshark is used to analyse network packet captures. It has been used in each of the captures to identify and gather relevant information and evidence.
CyberChef	CyberChef is a tool built by GCHQ that allows for encoding, decoding, encryption and other cyber related operations. This tool was used in capture one and two for the decoding of messages and content.
Binwalk	Binwalk is a linux command line tool mainly used for analysing a binary image for files, code, or other content. In this case it was used to examine images for potential steganography and extracting files from packets.
ngrep	ngrep is a tool that can be used to analyse and search network packet captures. ngrep was used in capture 2 to extract packets with the string 'PRIVMSG' to a text file for further analysis.
ImageMagick	ImageMagick is an image viewing tool built into Kali Linux. It was used through the investigation of capture 1 and 3 to examine the images.
Microsoft Excel	Microsoft Excel is a software tool used to write and edit CSV files. This was used in capture 4 to examine and edit the CSV exported from wireshark.
CSV to KLM Converter	CSV to KLM Converter is an online tool that converts a CSV file of longitude and latitudes into a KLM file that can be put into Google Earth. This was used in capture 4 to get the placemarks for each request/packet.
Google Earth	Google Earth is a google product that allows KLM's to be uploaded and plotted. This was used for capture 4, to see where the placemarks were pinned and led to the date of the meeting being shown.

Investigation of Capture 1

Packet Analysis

After analysing the packets and the protocols used with Wireshark, it was apparent that SMB protocol had been used to download items (*Figure 1*). SMB is commonly used to allow access to files, serial ports, and printers between Windows machines, if they are on the same network.

No.	Time	Source	Destination	Protocol	Length	Info
5857	234.029929	172.29.1.23	172.29.1.255	BROWSER	243	Host Announcement FOX-WS, Workstation, Server, Print Queue Server, NT Workstation, Potential Browser, B...
5898	243.765960	172.29.1.23	172.29.1.20	SMB	213	Negotiate Protocol Request
5899	243.766459	172.29.1.20	172.29.1.23	SMB	143	Negotiate Protocol Response
5900	243.934327	172.29.1.23	172.29.1.20	SMB	162	Session Setup AndX Request, NTLMSSP_NEGOTIATE
5901	243.934826	172.29.1.20	172.29.1.23	SMB	319	Session Setup AndX Response, NTLMSSP_CHALLENGE, Error: STATUS_MORE_PROCESSING_REQUIRED
5903	244.118929	172.29.1.23	172.29.1.20	SMB	238	Session Setup AndX Request, NTLMSSP_AUTH, User: \
5904	244.119929	172.29.1.20	172.29.1.23	SMB	175	Session Setup AndX Response
5906	244.275556	172.29.1.23	172.29.1.20	SMB	136	Tree Connect AndX Request, Path: \\DOG-WS\IPC\$
5907	244.275811	172.29.1.20	172.29.1.23	SMB	114	Tree Connect AndX Response
5908	244.336758	172.29.1.23	172.29.1.20	LANMAN	172	NetServerEnum2 Request, Domain Enum
5909	244.337256	172.29.1.20	172.29.1.23	LANMAN	138	NetServerEnum2 Response
5910	244.340753	172.29.1.23	172.29.1.20	LANMAN	186	NetServerEnum2 Request, Workstation, Server, SQL Server, Domain Controller, Backup Controller, Time Sou...
5911	244.341003	172.29.1.20	172.29.1.23	LANMAN	193	NetServerEnum2 Response
5949	257.521807	172.29.1.23	172.29.1.20	SMB	93	Tree Disconnect Request
5950	257.522055	172.29.1.20	172.29.1.23	SMB	93	Tree Disconnect Response
5951	257.594995	172.29.1.23	172.29.1.20	SMB	97	Logoff AndX Request
5952	257.595003	172.29.1.20	172.29.1.23	SMB	97	Logoff AndX Response

Figure 1 - List of SMB packets within network capture

Upon further inspection, the files that the suspect could access on the host device can be seen in packet 23917 in the 'FIND_FIRST2 Data' subtree. Not all the files shown in this list were downloaded by the suspect (*Figure 2*).

No.	Time	Source	Destination	Protocol	Length	Info
23917	650.620648	172.29.1.20	172.29.1.23	SMB	402	Trans2 Response, FIND_FIRST2, Files: ... Customer_Accounts desktop.ini drop folder larryeatswrt-with-s...

Field	Value
Data Offset:	68
Data Displacement:	0
Setup Count:	0
Reserved:	00
Byte Count (BCC):	1749
Padding:	00
FIND_FIRST2 Parameters	<ul style="list-style-type: none"> Level of Interest: Find File Both Directory Info (260) Search ID: 0x0000 Search Count: 14 End Of Search: 1 EA Error offset: 0 Last Name Offset: 1624 Padding: 0000
FIND_FIRST2 Data	<ul style="list-style-type: none"> Find File Both Directory Info File: . Find File Both Directory Info File: .. Find File Both Directory Info File: Customer_Accounts Find File Both Directory Info File: desktop.ini Find File Both Directory Info File: drop folder Find File Both Directory Info File: larryeatswrt-with-secretsauce.jpg Find File Both Directory Info File: larryeatswrt-withsecretsauce.bmp Find File Both Directory Info File: My Music Find File Both Directory Info File: My Pictures Find File Both Directory Info File: My Videos Find File Both Directory Info File: premium-customer-billing-list.xls Find File Both Directory Info File: production Find File Both Directory Info File: R_and_D Find File Both Directory Info File: Thumbs.db

Figure 2 - List of files available to suspect on host computer through SMB protocol

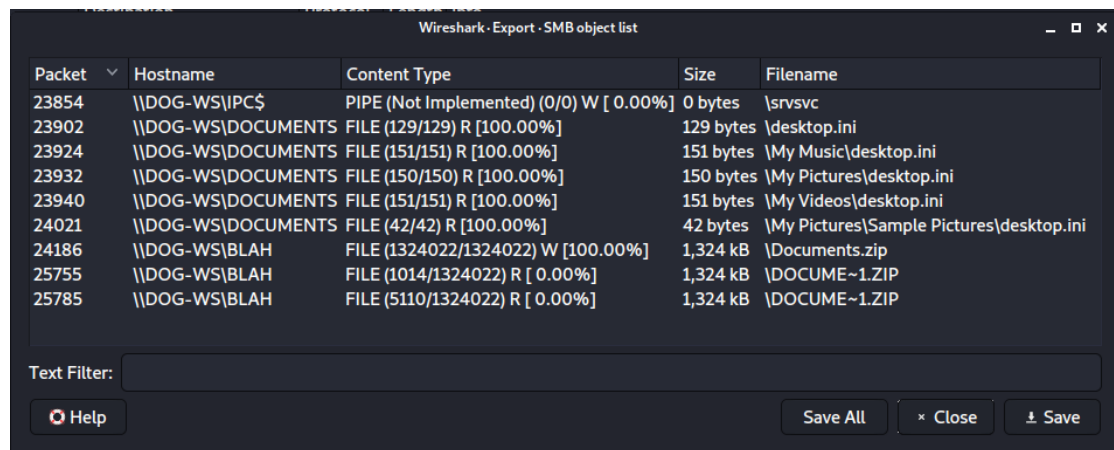
In packet 23844 which is shown in figure 3, we can identify the suspect's computer username as 'fox-ws'. We can also identify the suspect and host's IP and MAC addresses for their computers.

No.	Time	Source	Destination	Protocol	Length	Info
23844	642.004966	172.29.1.23	172.29.1.20	SMB	504	Session Setup AndX Request, NTLMSSP_AUTH, User: fox-ws\test

Field	Value
Frame 23844:	504 bytes on wire (4032 bits), 504 bytes captured (4032 bits)
Ethernet II, Src:	Dell_fa:a6:cc (00:08:74:fa:a6:cc), Dst: HewlettP_c2:e4:91 (00:0b:cd:c2:e4:91)
Destination:	HewlettP_c2:e4:91 (00:0b:cd:c2:e4:91)
Source:	Dell_fa:a6:cc (00:08:74:fa:a6:cc)
Type:	IPv4 (0x0800)
Internet Protocol Version 4, Src:	172.29.1.23, Dst: 172.29.1.20

Figure 3 - Packet containing information about suspect username and suspect and host IP and MAC addresses

Using the export tool within Wireshark, the files that were downloaded through the SMB protocol could be viewed by the examiner. In total, there are nine files that were downloaded, they consist of: five '.ini' files, three zipped files and a '.dll' file that is responsible server services which is likely used by the SMB protocol. We can also see the host computer's username is 'DOG-WS' (Figure 4).



Packet	Hostname	Content Type	Size	Filename
23854	\\DOG-WS\IPC\$	PIPE (Not Implemented) (0/0) W [0.00%]	0 bytes	\srvsvc
23902	\\DOG-WS\DOCUMENTS	FILE (129/129) R [100.00%]	129 bytes	\desktop.ini
23924	\\DOG-WS\DOCUMENTS	FILE (151/151) R [100.00%]	151 bytes	\My Music\desktop.ini
23932	\\DOG-WS\DOCUMENTS	FILE (150/150) R [100.00%]	150 bytes	\My Pictures\desktop.ini
23940	\\DOG-WS\DOCUMENTS	FILE (151/151) R [100.00%]	151 bytes	\My Videos\desktop.ini
24021	\\DOG-WS\DOCUMENTS	FILE (42/42) R [100.00%]	42 bytes	\My Pictures\Sample Pictures\desktop.ini
24186	\\DOG-WS\BLAH	FILE (1324022/1324022) W [100.00%]	1,324 kB	\Documents.zip
25755	\\DOG-WS\BLAH	FILE (1014/1324022) R [0.00%]	1,324 kB	\DOCUME~1.ZIP
25785	\\DOG-WS\BLAH	FILE (5110/1324022) R [0.00%]	1,324 kB	\DOCUME~1.ZIP

Figure 4 - List of files that have been transferred by SMB (Server Message Block) protocol

To ensure the integrity of the evidence, the files were saved in a read only folder to prevent overwriting of the data. Within the .ini files, there was no information that was necessary to the investigation so was disregarded. Two of the zip files were not accessible, as the archive format was not accessible – the object list in figure 4 shows that the zip files are the same size of the 'Documents.zip'. However, a hash of each zip was generated, and each hash was different which means that they do not contain the same content (Figure 5).

```
root@kali:~/Desktop/Forensics/capture1Evidence# sha256sum '%5cDOCUME~1(1).ZIP'
645037c66f3f420f30b3834dcdf3c89f98b57391d87d7f58cbd6d64300f1c9ff %5cDOCUME~1(1).ZIP
root@kali:~/Desktop/Forensics/capture1Evidence# sha256sum '%5cDOCUME~1.ZIP'
97eb8bcfd09b0d2f6e2ba8460a1e3322c6113b6154e0480b564a80ef32ef0ab0 %5cDOCUME~1.ZIP
root@kali:~/Desktop/Forensics/capture1Evidence# sha256sum %5cDocuments.zip
afa54cb6c0b3f2d606a9a0e9e424d4af1b4d0f03b8e5338e95acb6ec495772eb %5cDocuments.zip
```

Figure 5 - Hashes for each zip file that was downloaded from the host machine.

File Analysis

Within Documents.zip there were four folders and another zipped file. This zipped file contained four zipped files within one another which led to an empty folder called 'SilentEye' which can be seen in Figure 6. Research suggests that that the folder 'SilentEye'

contained steganography software by that name, which allows a user to hide plain text and files within images and sounds (Chorein, 2021).

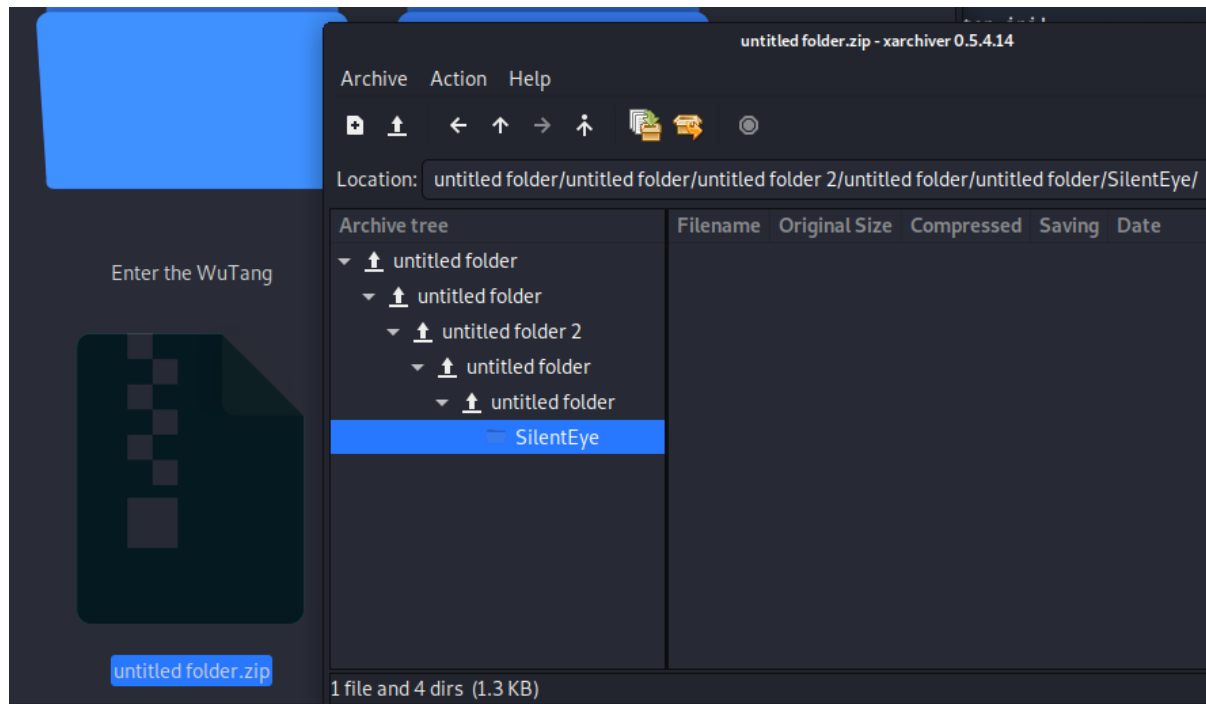


Figure 6 - File breakdown of the 'untitled folder.zip' folder

The other folders within the Documents.zip file was, 'Actual Documents', 'Chess Boxing', 'Enter the WuTang' and 'More Documents'. The contents of all the folders both in encoded and decoded states can be seen in Appendix A.

Within 'Actual Documents' there were three word documents, 'GoT Spoilers.docx', 'NorthKorea.docx' and 'PiD.docx'. Each of these files were encoded with Base64, these files were decoded by using CyberChef. 'GoT Spoilers' contained information about the TV series Game of Thrones, 'NorthKorea' was translated from Russian and described a conspiracy theory that North Korea is going to time travel to change the events of the Korean War. 'PiD' is a word document that describes a theory that Paul McCartney died in 1966 and that 'William Campbell' has taken his place, with a photo comparison of the two.

Within 'Chess Boxing' there were seven word documents and a '.jpg' of the North Korean flag called 'NK.jpg'. Each of the word documents were titled Rules1 to Rules7 and contained base-64 encoded rules for Chess Boxing. The word documents did not contain any information that was of interest to the investigation.

The 'Enter the WuTang' folder contained two word documents titled, 'track6.docx' and 'track10.docx'. These documents were also base-64 encoded like the other documents. Track6.docx had a list of usernames listed under "The Mystery of Chess Boxing:", it can be assumed that this is a list of usernames of those suspected of being involved with bribery and corruption (Figure 7).

The Mystery of Chess Boxing: (usernames)

Mr. Method

Kim Ill-Song

Mr. Razor

Mr. Genius

Mr. G. Killah

Matt Cassel

Mr. I. Deck

Mr. M Killa

Mr. O.D.B.

Mr. Raekwon

Mr. U-God

Mr. Cappadonna (possibly)

John Woo?

Mr. Nas

Figure 7 - List of usernames of potential suspects involved in suspected bribery and corruption

‘More Documents’ had two files stored within it. These were a plain-text document with the American Bill of Rights and another North Korean flag saved as ‘NorthKorea.jpeg’.

Steganography within Image Files

SilentEye was an empty folder that was found within the zipped ‘Documents.zip’ file, SilentEye is also the name of a Steganography software. This led the investigator to believe that Steganography may have been used to hide information in the two images that were found in the ‘Chess Boxing’ and ‘More Documents’ folders.

Using the command line tool ‘binwalk’, the images were scanned for any file signatures other than their image file signatures. ‘NK.jpg’ was scanned and did not have anything hidden within the image.

```
root@kali:~/Desktop/Forensics/capture1Evidence/Document_zip_extracted/Documents/Chess Bo
xing# binwalk -b NK.jpg
```

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	PNG image, 1600 x 800, 8-bit/color RGBA, non-interlaced

Figure 8 - Results of the binwalk signature scan of NK.jpg

When NorthKorea.jpeg was scanned, it was found to have a zipped file stored within as well as python script called broken.py. The extraction command was run through binwalk, where the investigator could access the zipped folder.

```
root@kali:~/Desktop/Forensics/capture1Evidence/Document_zip_extracted/Documents/More Documents# binwalk -b NorthKorea.jpeg
```

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	JPEG image data, JFIF standard 1.01
3453	0xD7D	Zip archive data, at least v2.0 to extract, name: untitled
3492	0xDA4	Zip archive data, at least v2.0 to extract, compressed size: 604, uncompressed size: 1397, name: untitled/broken.py
4263	0x10A7	End of Zip archive, footer length: 22

Figure 9 - Results of the binwalk signature scan of NorthKorea.jpeg

The python script that was embedded within the image was a python script that was in fact broken and had syntax errors. It's intended purpose seems to be encode files and can be viewed in Appendix A.

Investigation of Capture 2

Packet analysis

Having looked through the protocols being used within the network capture; it can be deduced that Internet Relay Chat (IRC) was being used by the suspect who is using the Alias “Ill-Song”. To analyse the IRC messages more effectively, the ngrep command was used to add all the packets from the network capture, with the term ‘PRIVMSG’ to a text file to be examined (Figure 10).

```
root@kali:~/Desktop/Forensics# ngrep -I 'Capture 2.pcap' 'PRIVMSG' > capture2messages.txt
```

Figure 10 - ngrep command to copy packets with ‘PRIVMSG’ in them to a text file.

This allowed the investigator to be able to examine the messages more effectively as there were no duplicates. It also meant that the full message was there and was not being ‘truncated’ by Wireshark. The full contents of the text file can be found in Appendix B and an example of the text file can be seen below in figure 11.

```
input: Capture 2.pcap
filter: ((ip || ip6) || (vlan && (ip || ip6)))
match: PRIVMSG
#####
T 172.29.1.17:50588 → 185.30.166.35:6667 [AP] #10
  PRIVMSG Razor1 :SlZaQzRJQ1NNRjVHNjRSTUVCrvNBWuxORUJTWFFZM0pPUlNXSULeQk1KWFhLNUJBT1JV
  R0tJRFFPSlhYRzRERk10MkNBmzNHRUIyR1FaSkFJTLVHSzQzVEVCQkc2NkRKTlpUU0E1M1BPSldHSULeVU5G
  MkdZWkpBTU5YVzIyTE9NNFFISTNaQUtCNFc2M1RIUEZRVzRaWk8= ..
#####
T 185.30.166.35:6667 → 172.29.1.17:50588 [AP] #22
  :Razor1!~malware@216.14.247.46 PRIVMSG Ill_Song : . . . . . NTc2NTZjNmMyMDc0Nj
  g2NTIwNjQ2NTYzNjk3MzY5NmY2ZTIwNjk3MzIwNmU2Zjc0MjA2NjY5NmU2MTZjMjA3OTY1NzQyZQ= ..
#####
T 172.29.1.17:50588 → 185.30.166.35:6667 [AP] #32
  PING LAG2341989052 .. PRIVMSG Razor1 :S0I0VzYzVehQRLFXNFpaQU5GwlnBWVRGTUYyWEkyTEdPVldD
  QTVESU5GwlnBNURKTLZTU0EzM0dFQjRXS1lMU0ZZUUBWkxTTkJRWEe0WkFQRLhYS0lEWE41MldZWkJBTlJV
  V1daSkFPULhTQTVUSk90VVhJSURCTlpTQ0FaTFLPQLNYRTJMRk5aUlDLsURYTkJRWE1JQ0NNVlpYSULdTE41
  WkdLWUpBTkJRWEJRFVONFFHNlpUR01WwkmOPT09 ..
```

Figure 11 - A screenshot of the capture2messages.txt file

Decoding the Messages

The messages were then decoded and can be found in Appendix C. Each user had double-encoded their messages, all used Base-64 first and then used a secondary encoding method. Ill-Song used Base-32, Razor, Method and Raekwon used Hexadecimal, Killah and Genius1 used Octal. The location sent to Genius 1 was also further obfuscated as a md5 hash but was cracked to find the location was “Caracas”.

The key evidence that was gathered from these messages is as follows:

- Razor is ‘in the city of love’ which is Paris, has accepted a bribe of \$700,000 from Ill-Song and plans to meet later.
- Genius1 is in Caracas, which is confirmed in the message “No. Not here.”. Genius1 has displayed interest in Ill-Song’s bribe but there is no solid evidence.
- Method tells Ill-Song that they know who they are and immediately end their communication with them.

- Killah is in Qatar, which is identified from Ill-Song's opening message. Killah rejects Ill-Song's bribe and makes it clear that they cannot be bribed.
- Raekwon is from Russia, as they ask for "at least 20 million Rubles" to consider a bribe – which Ill-Song accepts.

In summary, Razor and Raekwon have explicitly accepted a bribe and Genius1 has indicated that they could be bought. Method and Killah have explicitly rejected Ill-Song's bribe.

Investigation of Capture 3

Packet Analysis

As the investigator was told that there was suspect FTP traffic between a suspect official and a foreign national, the FTP protocol was filtered in Wireshark. We can see that the suspect official is Ill-Song from Capture 2 and there is a 'sandofwhich.zip' file being transferred (Figure 12). There is also another zip file being transferred called, 'ojd34.zip' after the first zipped file (Figure 13).

```
FTP      74 Request: CWD /home/Ill_Song
FTP      91 Response: 250 Directory successfully changed.
FTP      62 Request: TYPE I
FTP      85 Response: 200 Switching to Binary mode.
FTP      60 Request: PASV
FTP     104 Response: 227 Entering Passive Mode (172,29,1,21,216,252).
FTP      76 Request: RETR sandofwhich.zip
```

Figure 12 - Ill-Song's directory and the zipped file within the FTP traffic

```
FTP      70 Request: RETR ojd34.zip
```

Figure 13 - Second zipped file within the FTP traffic

The zip files were then extracted from the PCAP using the TCP stream function. (Duncan, B., 2021). Once the files had been extracted, the contents within were then listed (Figure 14). The images all had one-word names, which fitted the clue given to the investigator.

```
root@kali:~/Desktop/Forensics/capture3evidence/sandofwhich# ls
destroy.jpg  freedom.jpg  government.jpg  in.jpg  rights.jpg
for.jpg      good.jpg    I.jpg          NSA.jpg  security.jpg
root@kali:~/Desktop/Forensics/capture3evidence/ojd34# ls
allow.jpg  around.jpg  building.jpg  conscience.jpg  Watergate.jpg
and.jpg    basic.jpg   cant.jpg     terrorism.jpg   web-based.jpg
```

Figure 14 - Contents of the zip files

The quote that fitted these image names, was a quote to the Guardian where he revealed himself to be the whistleblower. "I can't in good conscience allow the US government to destroy privacy, internet freedom and basic liberties for people around the world with this massive surveillance machine they're secretly building." (Snowden, 2013).

The investigator noticed that there were not enough images to build the quote, so decided to examine the PCAP again and was unsuccessful in exporting ZIP files from an email chain in the PCAP. Using binwalk again, the contents of the PCAP file were extracted to gain access to the three other zip files, which also had images within them (Figure 15).

```
root@kali:~/Desktop/Forensics# binwalk -e 'Capture 3.pcap'
```

Figure 15 - binwalk command to extract all files from the third PCAP

A full list of the images from each folder will be included in Appendix D. Once all the images had been collected, the cat command was used to build the image. The full command can be seen in Figure 16 and the final image, which is of a chessboard can be seen in Figure 17.

```
root@kali:~/Desktop/Forensics/capture3images# cat I.jpg cant.jpg in.jpg good.jpg conscien
ce.jpg allow.jpg the.jpg U.S..jpg government.jpg to.jpg destroy.jpg privacy.jpg internet.
jpg freedom.jpg and.jpg basic.jpg liberties.jpg for.jpg people.jpg around.jpg world.jpg w
ith.jpg this.jpg massive.jpg surveillance.jpg machine.jpg theyre.jpg secretly.jpg buildin
g.jpg > snowdenImage.jpg
```

Figure 16 - cat command to build snowdenImage.jpg



Figure 17 - snowdenImage, which displays an image of a chessboard.

The investigator also noticed that there were also segments of images that could be viewed, as well as some images that weren't used in the snowdenImage.jpg. Trial and error was used to build these images and eventually the images were rebuilt and could be viewed. The first image was of a Gundam Robot, with the viewable segment was labelled 'condone.jpg', the command and images used to build the image can be viewed in Figure 18 and the image segment and built image can be seen in Figure 19.

```
root@kali:~/Desktop/Forensics/capture3images# cat condone.jpg American.jpg web-based.jpg
rights.jpg constructing.jpg security.jpg terrorism.jpg NSA.jpg Watergate.jpg corrupt.jpg
human.jpg behind.jpg closed.jpg doors.jpg > condoneSegment.jpg
```

Figure 18 - cat command to build condoneSegment.jpg

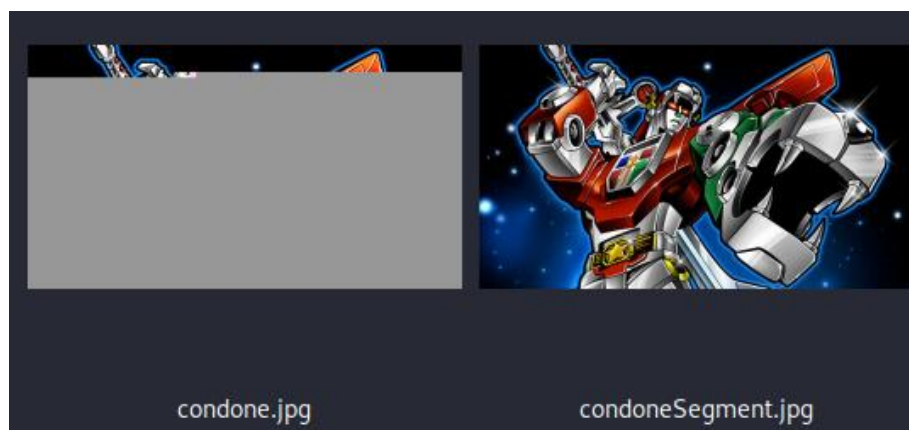


Figure 19 - segment and built image of condoneSegment.jpg

Like the second image, there was another segment that could be viewed, and the remaining images were used in a trial-and-error method. The command can be seen in Figure 20 and the third and final image which was of Kim Jong-Un can be viewed in Figure 21.

```
root@kali:~/Desktop/Forensics/capture3images# cat there.jpg their.jpg a.jpg it.jpg but.jpg
communism.jpg nor.jpg because.jpg unconstitutional.jpg secretive.jpg secret.jpg > there
Segment.jpg
```

Figure 20 - cat command to build thereSegment.jpg

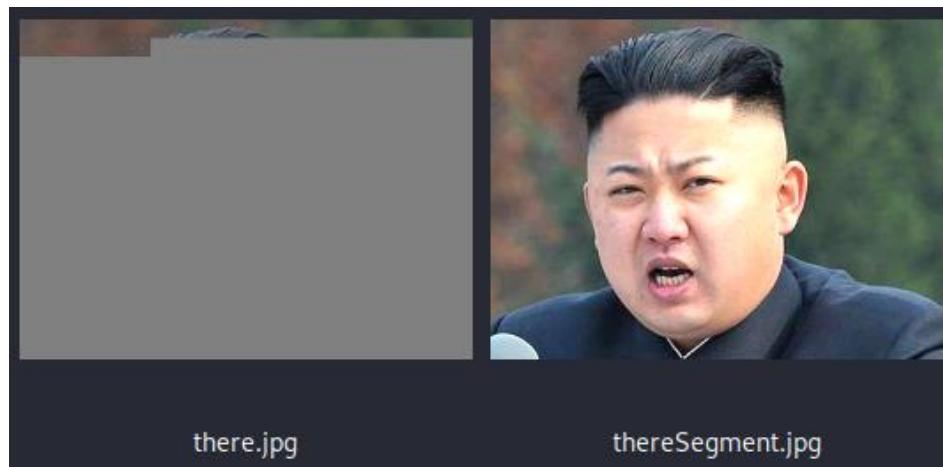


Figure 21 - Segment and built image of thereSegment.jpg

To ensure that there was no files hidden within the images similar to the image in capture one, binwalk was used to extract any files that were present within the images. Binwalk found no files or other data within the image and can be seen in figure 22.

```
root@kali:~/Desktop/Forensics/capture3images# binwalk -e snowdenImage.jpg
DECIMAL      HEXADECIMAL  DESCRIPTION
-----
0            0x0          JPEG image data, JFIF standard 1.01

root@kali:~/Desktop/Forensics/capture3images# binwalk -e condoneSegment.jpg
DECIMAL      HEXADECIMAL  DESCRIPTION
-----
0            0x0          JPEG image data, JFIF standard 1.02

root@kali:~/Desktop/Forensics/capture3images# binwalk -e thereSegment.jpg
DECIMAL      HEXADECIMAL  DESCRIPTION
-----
0            0x0          JPEG image data, JFIF standard 1.01
30           0x1E          TIFF image data, little-endian offset of first image directory: 8
```

Figure 22 - Binwalk command to extract any files from the three images

Investigation of Capture 4

Ill-Song and Ann Dercover had been arranging discreet meetings, the investigator was tasked to find out when and where these meetings were taking place. When investigating the traffic within the PCAP file, Ann's mobile phone – a Nexus 7 was using the TextFree app to send and receive messages from Kim Ill-Song.

```
POST /1.0/communications?startIndex=0&since=2014-07-02+22%3A41%3A31 HTTP/1.1
x-rest-method: GET\r\n
Content-Type: application/json\r\n
X-Install-Id: 6965eedb59a7b282f94dd58e7a451474\r\n
x-client: textfree-android,2.3.2\r\n
x-os: android,4.2.2\r\n
x-uid: 580781709\r\n
x-gid: 0\r\n
[truncated]Authorization: OAuth realm="http://api.pinger.com", oauth_consume
User-Agent: Dalvik/1.6.0 (Linux; U; Android 4.2.2; Nexus 7 Build/JDQ39E)\r\n
```

Figure 23 - HTTP request where Nexus and TextFree were identified

The investigator then exported all HTTP objects to obtain the contents of the communication between Ann and Kim. All the text files with the word 'communication' within them were moved to a new read-only folder and read using a JSON viewer. The JSON dump can be viewed in appendix E. The full conversation can be read in Table 1 below.

Sender	Message
Kim Ill-Song	"Good afternoon Ann"
Ann	"Who is this?"
Kim Ill-Song	"Castling"
Ann	"Where are you?"
Kim Ill-Song/Castling	"I know I can't tell you that"
Ann	"Do you know that there are people investigating Kim Ill-Song?"
Kim Ill-Song/Castling	"Of course. However they will never know that it is me behind the bribes."
Ann	"Still we should be careful. Pay attention. I want to meet in September at 5pm."
Kim Ill-Song/Castling	"At our old meetup spot?"
Ann	"Yes"
Kim Ill-Song/Castling	"What day?"
Ann	"I told you to pay attention"

Table 1 - Conversation between Ann Dercover and Kim Ill-Song

After analysing the traffic from Ann's Nexus device and IP address, the investigator began looking into the numerous GET requests made to '/geocoding/v1/reverse?...'. There were 117 of these requests, which were gathered using the wireshark command 'http.host == mob.mapquestapi.com' and subsequently exported to a CSV file through the export function. An example of these requests can be seen below in figure 24.

No.	Time	Source	Destination	Protocol	Length	Info
7887	424.387108	192.168.1.5	207.200.102.1	HTTP	258	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
7849	428.389472	192.168.1.5	207.200.102.1	HTTP	258	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
7577	430.891308	192.168.1.5	207.200.102.1	HTTP	258	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
7790	434.185345	192.168.1.5	207.200.102.1	HTTP	259	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
7897	438.492845	192.168.1.5	207.200.102.1	HTTP	259	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
7982	440.928336	192.168.1.5	207.200.102.1	HTTP	257	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8149	442.411987	192.168.1.5	207.200.102.1	HTTP	259	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8260	445.148333	192.168.1.5	207.200.102.1	HTTP	259	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8333	445.431337	192.168.1.5	207.200.102.1	HTTP	258	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8425	445.836687	192.168.1.5	207.200.102.1	HTTP	259	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8516	446.079234	192.168.1.5	207.200.102.1	HTTP	259	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8610	448.638319	192.168.1.5	207.200.102.1	HTTP	258	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8714	451.796776	192.168.1.5	207.200.102.1	HTTP	259	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.
8788	452.048548	192.168.1.5	207.200.102.1	HTTP	258	GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.

Figure 24 - Screenshot of the command and 14 of the 117 requests

Once these requests were exported to CSV, it could be seen that there was longitude and latitude co-ordinates within the requests. Using excel, the requests were thinned out to leave just the longitude and latitude of each request by deleting the terms, "GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=", "%2C" and "HTTP/1.1". Both the CSV from wireshark with all the request information, and the CSV with just the longitude and latitude can be viewed in appendix E.

Once the CSV file had been cleaned up to leave just the longitude and latitude, an online CSV to KML converter was then used to create a placemark for each of the requests. The KML file can also be viewed in appendix E. When the KML was uploaded to Google Earth, it displayed these placemarks in a '17' within Salt Lake City in Utah as seen in figure 25. This means that the day that they are planning to meet is on the 17th.

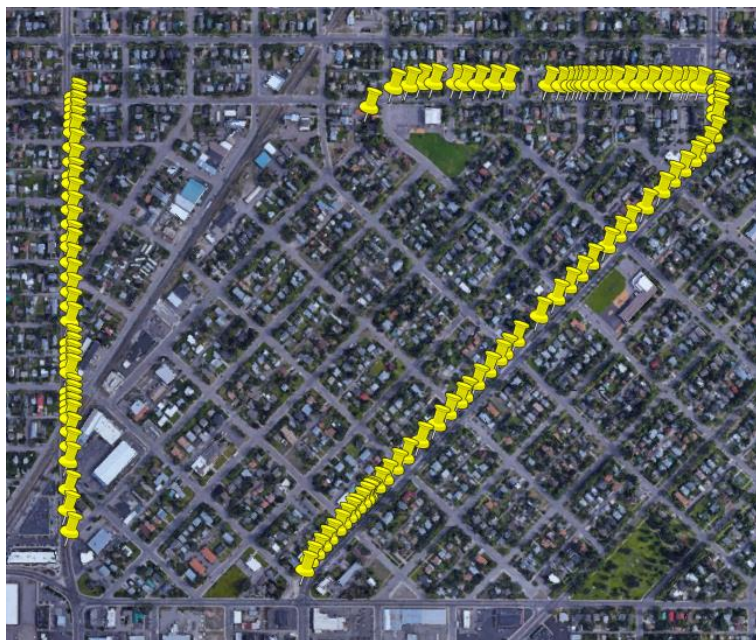


Figure 25 - Google Earth showing the placemarks generated by the requests in the shape of a '17'

References

Answers.microsoft.com. 2021. *What is the purpose of srvsvc.dll?*. [online] Available at: <<https://answers.microsoft.com/en-us/windows/forum/all/what-is-the-purpose-of-srvsvcdll/ab99d565-b088-41b4-8b6e-c203994b5a07>> [Accessed 18 December 2021].

Techterms.com. 2021. *SMB (Server Message Block) Definition*. [online] Available at: <<https://techterms.com/definition/smb>> [Accessed 18 December 2021].

Chorein, A., 2021. *SilentEye - Steganography is yours*. [online] Achorein.github.io. Available at: <<https://achorein.github.io/silenteye/>> [Accessed 18 December 2021].

Book.hacktricks.xyz. 2021. *Stego Tricks - HackTricks*. [online] Available at: <<https://book.hacktricks.xyz/stego/stego-tricks>> [Accessed 19 December 2021].

Duncan, B., 2021. *Wireshark Tutorial: Exporting Objects from a Pcap*. [online] Unit42. Available at: <<https://unit42.paloaltonetworks.com/using-wireshark-exporting-objects-from-a-pcap/>> [Accessed 19 December 2021].

Convertcsv.com. 2021. *CSV To KML Converter*. [online] Available at: <<https://www.convertcsv.com/csv-to-kml.htm>> [Accessed 21 December 2022].

Appendix

[Appendix A – Documents.zip files](#)

[Appendix B – Raw dump of messages sent in Capture 2](#)

[Appendix C – IRC Conversations](#)

[Appendix D – Sent Images](#)

[Appendix E – Evidence of communication between Ann and Ill-Song](#)

```
{
  "calls": [

  ],
  "voicemails": [

  ],
  "messages": [
    {
      "messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
      "messageStatus": "read",
      "time": "2014-07-02 22:38:55"
    }
  ]
}
{
  "success": "messages updated"
}
{
  "calls": [

  ],
  "voicemails": [

  ],
  "messages": [
    {
      "messageId": "c113ed366ab0fba64f6215f41d6fb127",
      "messageStatus": "read",
      "time": "2014-07-02 22:39:31"
    }
  ]
}
{
  "success": "messages updated"
}
{
  "supportedMessages": [
    "bsm"
  ]
}
{
  "success": "messages retrieved",
  "result": {
```

```
"recMessages": [
  {
    "messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
    "messageType": "normal",
    "messageText": "Good afternoon, Ann.",
    "recipientType": "phone",
    "recipientId": "14068522589",
    "senderType": "phone",
    "senderId": "14069243754",
    "senderName": "Kim Ill-song",
    "time": "2014-07-02 22:38:55",
    "messageStatus": "unread",
    "deliveryMethod": "onnet"
  }
],
"sentMessages": [
  {
    "messageId": "d275712ce4c2b1b420bd1ba0728b79af",
    "messageType": "normal",
    "messageText": "this is a test",
    "recipientType": "phone",
    "recipientId": "14069243754",
    "senderType": "phone",
    "senderId": "14068522589",
    "senderName": "Ann Dercover",
    "time": "2014-07-02 22:34:13",
    "messageStatus": "read",
    "deliveryMethod": "onnet"
  }
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:38:57",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
```

```
{
  "supportedMessages": [
    "bsm"
  ]
}
{
  "success": "messages retrieved",
  "result": {
    "recMessages": [
      {
        "messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
        "messageType": "normal",
        "messageText": "Good afternoon, Ann.",
        "recipientType": "phone",
        "recipientId": "14068522589",
        "senderType": "phone",
        "senderId": "14069243754",
        "senderName": "Kim Ill-song",
        "time": "2014-07-02 22:38:55",
        "messageStatus": "read",
        "deliveryMethod": "onnet"
      }
    ],
    "sentMessages": [

    ],
    "brandedSystemMessages": [

    ],
    "calls": [

    ],
    "voicemails": [

    ],
    "now": "2014-07-02 22:38:57",
    "largestCount": 1,
    "smsCreditBalance": 0,
    "callingCreditBalance": 0,
    "numTextsSent": 0,
    "numTextsRec": 0,
    "inviteCount": 0
  }
}
{
  "supportedMessages": [
    "bsm"
  ]
}
```

```
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
      "messageType": "normal",
      "messageText": "Good afternoon, Ann.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:38:55",
      "messageStatus": "read",
      "deliveryMethod": "onnet"
    },
    {
      "messageId": "c113ed366ab0fba64f6215f41d6fb127",
      "messageType": "normal",
      "messageText": "Castling.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:39:31",
      "messageStatus": "unread",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [
    {
      "messageId": "eb232446d54193d00876830421797030",
      "messageType": "normal",
      "messageText": "who is this?",
      "recipientType": "phone",
      "recipientId": "14069243754",
      "senderType": "phone",
      "senderId": "14068522589",
      "senderName": "Ann Dercover",
      "time": "2014-07-02 22:39:15",
      "messageStatus": "read",
      "deliveryMethod": "onnet"
    }
  ],
  "brandedSystemMessages": [
```

```
],
  "calls": [

  ],
  "voicemails": [

  ],
  "now": "2014-07-02 22:39:32",
  "largestCount": 2,
  "smsCreditBalance": 0,
  "callingCreditBalance": 0,
  "numTextsSent": 0,
  "numTextsRec": 0,
  "inviteCount": 0
}
}{
  "supportedMessages": [
    "bsm"
  ]
}{
  "success": "messages retrieved",
  "result": {
    "recMessages": [
      {
        "messageId": "c113ed366ab0fba64f6215f41d6fb127",
        "messageType": "normal",
        "messageText": "Castling.",
        "recipientType": "phone",
        "recipientId": "14068522589",
        "senderType": "phone",
        "senderId": "14069243754",
        "senderName": "Kim Ill-song",
        "time": "2014-07-02 22:39:31",
        "messageStatus": "read",
        "deliveryMethod": "onnet"
      }
    ],
    "sentMessages": [

    ],
    "brandedSystemMessages": [

    ],
    "calls": [

    ],
    "voicemails": [
```

```
    ],
    "now": "2014-07-02 22:39:32",
    "largestCount": 1,
    "smsCreditBalance": 0,
    "callingCreditBalance": 0,
    "numTextsSent": 0,
    "numTextsRec": 0,
    "inviteCount": 0
  }
}{
  "supportedMessages": [
    "bsm"
  ]
}{
  "success": "messages retrieved",
  "result": {
    "recMessages": [
      {
        "messageId": "c113ed366ab0fba64f6215f41d6fb127",
        "messageType": "normal",
        "messageText": "Castling.",
        "recipientType": "phone",
        "recipientId": "14068522589",
        "senderType": "phone",
        "senderId": "14069243754",
        "senderName": "Kim Ill-song",
        "time": "2014-07-02 22:39:31",
        "messageStatus": "read",
        "deliveryMethod": "onnet"
      }
    ],
    "sentMessages": [
      {
        "messageId": "4125737ad17157e816310b4f2f98752a",
        "messageType": "normal",
        "messageText": "where are you?",
        "recipientType": "phone",
        "recipientId": "14069243754",
        "senderType": "phone",
        "senderId": "14068522589",
        "senderName": "Ann Dercover",
        "time": "2014-07-02 22:39:46",
        "messageStatus": "read",
        "deliveryMethod": "onnet"
      }
    ],
  },
}
```

```
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:39:54",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
  "bsm"
]
}{
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "dc821c4eeacd713cfef5cea15e803040",
      "messageType": "normal",
      "messageText": "I know I can't tell you that.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:40:05",
      "messageStatus": "unread",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [

],
  "brandedSystemMessages": [

],
  "calls": [
```

```
],
  "voicemails": [

  ],
  "now": "2014-07-02 22:40:06",
  "largestCount": 1,
  "smsCreditBalance": 0,
  "callingCreditBalance": 0,
  "numTextsSent": 0,
  "numTextsRec": 0,
  "inviteCount": 0
}
}{
  "supportedMessages": [
    "bsm"
  ]
}
}{
  "success": "messages retrieved",
  "result": {
    "recMessages": [
      {
        "messageId": "dc821c4eeacd713cfef5cea15e803040",
        "messageType": "normal",
        "messageText": "I know I can't tell you that.",
        "recipientType": "phone",
        "recipientId": "14068522589",
        "senderType": "phone",
        "senderId": "14069243754",
        "senderName": "Kim Ill-song",
        "time": "2014-07-02 22:40:05",
        "messageStatus": "read",
        "deliveryMethod": "onnet"
      }
    ],
    "sentMessages": [
      {
        "messageId": "bdc2b81acb8e3bff28a1e87ff44ee5d7",
        "messageType": "normal",
        "messageText": "Do you know that there are people investigating Kim Ill-Song?",
        "recipientType": "phone",
        "recipientId": "14069243754",
        "senderType": "phone",
        "senderId": "14068522589",
        "senderName": "Ann Dercover",
        "time": "2014-07-02 22:41:25",
        "messageStatus": "read",
        "deliveryMethod": "onnet"
      }
    ]
  }
}
```



```
}
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:41:31",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
  "bsm"
]
}{
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "8197385d4b4222e32ec474fa497b70d8",
      "messageType": "normal",
      "messageText": "Of course. However, they will never know it is me behind the
bribes.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:41:47",
      "messageStatus": "unread",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [

],
"brandedSystemMessages": [
```

```
],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:41:48",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
"bsm"
]
}{
"success": "messages retrieved",
"result": {
"recMessages": [
{
"messageId": "8197385d4b4222e32ec474fa497b70d8",
"messageType": "normal",
"messageText": "Of course. However, they will never know it is me behind the
bribes.",
"recipientType": "phone",
"recipientId": "14068522589",
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:41:47",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"sentMessages": [
{
"messageId": "700b4051723f212b979cf068e59067b9",
"messageType": "normal",
"messageText": "still we should be careful. Pay attention. I want to meet in
September at 5PM.",
"recipientType": "phone",
"recipientId": "14069243754",
"senderType": "phone",
```

```
"senderId": "14068522589",
"senderName": "Ann Dercover",
"time": "2014-07-02 22:42:54",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:42:58",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
"bsm"
]
}{
"success": "messages retrieved",
"result": {
"recMessages": [
{
"messageId": "e5d6be661c5ed90cfb27a0fb50b33bf2",
"messageType": "normal",
"messageText": "At our old meetup spot?",
"recipientType": "phone",
"recipientId": "14068522589",
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:43:06",
"messageStatus": "unread",
"deliveryMethod": "onnet"
}
],
"sentMessages": [
```

```
    ],
    "brandedSystemMessages": [

    ],
    "calls": [

    ],
    "voicemails": [

    ],
    "now": "2014-07-02 22:43:07",
    "largestCount": 1,
    "smsCreditBalance": 0,
    "callingCreditBalance": 0,
    "numTextsSent": 0,
    "numTextsRec": 0,
    "inviteCount": 0
  }
}{
  "supportedMessages": [
    "bsm"
  ]
}{
  "success": "messages retrieved",
  "result": {
    "recMessages": [
      {
        "messageId": "e5d6be661c5ed90cfb27a0fb50b33bf2",
        "messageType": "normal",
        "messageText": "At our old meetup spot?",
        "recipientType": "phone",
        "recipientId": "14068522589",
        "senderType": "phone",
        "senderId": "14069243754",
        "senderName": "Kim Ill-song",
        "time": "2014-07-02 22:43:06",
        "messageStatus": "read",
        "deliveryMethod": "onnet"
      },
      {
        "messageId": "b5860bdea833df4231c31dfbecbedf0d",
        "messageType": "normal",
        "messageText": "What day?",
        "recipientType": "phone",
        "recipientId": "14068522589",
        "senderType": "phone",
```

```
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:43:44",
"messageStatus": "unread",
"deliveryMethod": "onnet"
}
],
"sentMessages": [
{
"messageId": "9854f7107287ad4d6a6a69b25fc3da57",
"messageType": "normal",
"messageText": "yes",
"recipientType": "phone",
"recipientId": "14069243754",
"senderType": "phone",
"senderId": "14068522589",
"senderName": "Ann Dercover",
"time": "2014-07-02 22:43:28",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:43:45",
"largestCount": 2,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
"bsm"
]
}{
"success": "messages retrieved",
"result": {
"recMessages": [
```

```
{
  "messageId": "b5860bdea833df4231c31dfbecbedf0d",
  "messageType": "normal",
  "messageText": "What day?",
  "recipientType": "phone",
  "recipientId": "14068522589",
  "senderType": "phone",
  "senderId": "14069243754",
  "senderName": "Kim Ill-song",
  "time": "2014-07-02 22:43:44",
  "messageStatus": "read",
  "deliveryMethod": "onnet"
},
"sentMessages": [

],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:43:45",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [

],
  "sentMessages": [

],

```

```
"brandedSystemMessages": [
],
"calls": [
],
"voicemails": [
],
"now": "2014-07-02 22:43:45",
"largestCount": 0,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
"bsm"
]
}{
"success": "messages retrieved",
"result": {
"recMessages": [
{
"messageId": "b5860bdea833df4231c31dfbecbedf0d",
"messageType": "normal",
"messageText": "What day?",
"recipientType": "phone",
"recipientId": "14068522589",
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:43:44",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"sentMessages": [
{
"messageId": "3ceeadc119a0225656c73b3fbfd3418f",
"messageType": "normal",
"messageText": "I told you to pay attention.",
"recipientType": "phone",
"recipientId": "14069243754",
"senderType": "phone",
```

```
"senderId": "14068522589",
"senderName": "Ann Dercover",
"time": "2014-07-02 22:50:32",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:50:45",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"calls": [

],
"voicemails": [

],
"messages": [
{
"messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
"messageStatus": "read",
"time": "2014-07-02 22:38:55"
}
]
}{
"success": "messages updated"
}{
"calls": [

],
"voicemails": [

],
```



```
"messages": [
  {
    "messageId": "c113ed366ab0fba64f6215f41d6fb127",
    "messageStatus": "read",
    "time": "2014-07-02 22:39:31"
  }
]
}
"success": "messages updated"
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
      "messageType": "normal",
      "messageText": "Good afternoon, Ann.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:38:55",
      "messageStatus": "unread",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [
    {
      "messageId": "d275712ce4c2b1b420bd1ba0728b79af",
      "messageType": "normal",
      "messageText": "this is a test",
      "recipientType": "phone",
      "recipientId": "14069243754",
      "senderType": "phone",
      "senderId": "14068522589",
      "senderName": "Ann Dercover",
      "time": "2014-07-02 22:34:13",
      "messageStatus": "read",
      "deliveryMethod": "onnet"
    }
  ],
  "brandedSystemMessages": [
```

```
    ],
    "calls": [

    ],
    "voicemails": [

    ],
    "now": "2014-07-02 22:38:57",
    "largestCount": 1,
    "smsCreditBalance": 0,
    "callingCreditBalance": 0,
    "numTextsSent": 0,
    "numTextsRec": 0,
    "inviteCount": 0
  }
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
      "messageType": "normal",
      "messageText": "Good afternoon, Ann.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:38:55",
      "messageStatus": "read",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [

  ],
  "brandedSystemMessages": [

  ],
  "calls": [

  ],

```

```
"voicemails": [
  ],
  "now": "2014-07-02 22:38:57",
  "largestCount": 1,
  "smsCreditBalance": 0,
  "callingCreditBalance": 0,
  "numTextsSent": 0,
  "numTextsRec": 0,
  "inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "45b537c51e5cf2f90f31779e9ec8fc46",
      "messageType": "normal",
      "messageText": "Good afternoon, Ann.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:38:55",
      "messageStatus": "read",
      "deliveryMethod": "onnet"
    },
    {
      "messageId": "c113ed366ab0fba64f6215f41d6fb127",
      "messageType": "normal",
      "messageText": "Castling.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:39:31",
      "messageStatus": "unread",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [
```

```
{
  "messageId": "eb232446d54193d00876830421797030",
  "messageType": "normal",
  "messageText": "who is this?",
  "recipientType": "phone",
  "recipientId": "14069243754",
  "senderType": "phone",
  "senderId": "14068522589",
  "senderName": "Ann Dercover",
  "time": "2014-07-02 22:39:15",
  "messageStatus": "read",
  "deliveryMethod": "onnet"
},
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:39:32",
"largestCount": 2,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "c113ed366ab0fba64f6215f41d6fb127",
      "messageType": "normal",
      "messageText": "Castling.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
```

```
    "senderName": "Kim Ill-song",
    "time": "2014-07-02 22:39:31",
    "messageStatus": "read",
    "deliveryMethod": "onnet"
  }
],
"sentMessages": [

],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:39:32",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
  "bsm"
]
}{
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "c113ed366ab0fba64f6215f41d6fb127",
      "messageType": "normal",
      "messageText": "Castling.",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:39:31",
      "messageStatus": "read",
      "deliveryMethod": "onnet"
    }
  ]
}
```

```
],
"sentMessages": [
  {
    "messageId": "4125737ad17157e816310b4f2f98752a",
    "messageType": "normal",
    "messageText": "where are you?",
    "recipientType": "phone",
    "recipientId": "14069243754",
    "senderType": "phone",
    "senderId": "14068522589",
    "senderName": "Ann Dercover",
    "time": "2014-07-02 22:39:46",
    "messageStatus": "read",
    "deliveryMethod": "onnet"
  }
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:39:54",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "dc821c4eeacd713cfef5cea15e803040",
      "messageType": "normal",
      "messageText": "I know I can't tell you that.",
      "recipientType": "phone",
      "recipientId": "14068522589",
```

```
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:40:05",
"messageStatus": "unread",
"deliveryMethod": "onnet"
}
],
"sentMessages": [

],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:40:06",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}{
"supportedMessages": [
"bsm"
]
}{
"success": "messages retrieved",
"result": {
"recMessages": [
{
"messageId": "dc821c4eeacd713cfef5cea15e803040",
"messageType": "normal",
"messageText": "I know I can't tell you that.",
"recipientType": "phone",
"recipientId": "14068522589",
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:40:05",
"messageStatus": "read",
```

```
    "deliveryMethod": "onnet"
  }
],
"sentMessages": [
  {
    "messageId": "bdc2b81acb8e3bff28a1e87ff44ee5d7",
    "messageType": "normal",
    "messageText": "Do you know that there are people investigating Kim Ill-Song?",
    "recipientType": "phone",
    "recipientId": "14069243754",
    "senderType": "phone",
    "senderId": "14068522589",
    "senderName": "Ann Dercover",
    "time": "2014-07-02 22:41:25",
    "messageStatus": "read",
    "deliveryMethod": "onnet"
  }
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:41:31",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "8197385d4b4222e32ec474fa497b70d8",
      "messageType": "normal",
```



```
"messageText": "Of course. However, they will never know it is me behind the
bribes.",
  "recipientType": "phone",
  "recipientId": "14068522589",
  "senderType": "phone",
  "senderId": "14069243754",
  "senderName": "Kim Ill-song",
  "time": "2014-07-02 22:41:47",
  "messageStatus": "unread",
  "deliveryMethod": "onnet"
}
],
"sentMessages": [

],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:41:48",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "8197385d4b4222e32ec474fa497b70d8",
      "messageType": "normal",
      "messageText": "Of course. However, they will never know it is me behind the
bribes.",
      "recipientType": "phone",
      "recipientId": "14068522589",
```

```
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:41:47",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"sentMessages": [
{
"messageId": "700b4051723f212b979cf068e59067b9",
"messageType": "normal",
"messageText": "still we should be careful. Pay attention. I want to meet in
September at 5PM.",
"recipientType": "phone",
"recipientId": "14069243754",
"senderType": "phone",
"senderId": "14068522589",
"senderName": "Ann Dercover",
"time": "2014-07-02 22:42:54",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:42:58",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
{
"supportedMessages": [
"bsm"
]
}
{
"success": "messages retrieved",
```

```
"result": {
  "recMessages": [
    {
      "messageId": "e5d6be661c5ed90cfb27a0fb50b33bf2",
      "messageType": "normal",
      "messageText": "At our old meetup spot?",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:43:06",
      "messageStatus": "unread",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [

  ],
  "brandedSystemMessages": [

  ],
  "calls": [

  ],
  "voicemails": [

  ],
  "now": "2014-07-02 22:43:07",
  "largestCount": 1,
  "smsCreditBalance": 0,
  "callingCreditBalance": 0,
  "numTextsSent": 0,
  "numTextsRec": 0,
  "inviteCount": 0
}
{
  "supportedMessages": [
    "bsm"
  ]
}
{
  "success": "messages retrieved",
  "result": {
    "recMessages": [
      {
        "messageId": "e5d6be661c5ed90cfb27a0fb50b33bf2",
        "messageType": "normal",
```

```
"messageText": "At our old meetup spot?",
"recipientType": "phone",
"recipientId": "14068522589",
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:43:06",
"messageStatus": "read",
"deliveryMethod": "onnet"
},
{
  "messageId": "b5860bdea833df4231c31dfbecbedf0d",
  "messageType": "normal",
  "messageText": "What day?",
  "recipientType": "phone",
  "recipientId": "14068522589",
  "senderType": "phone",
  "senderId": "14069243754",
  "senderName": "Kim Ill-song",
  "time": "2014-07-02 22:43:44",
  "messageStatus": "unread",
  "deliveryMethod": "onnet"
}
],
"sentMessages": [
  {
    "messageId": "9854f7107287ad4d6a6a69b25fc3da57",
    "messageType": "normal",
    "messageText": "yes",
    "recipientType": "phone",
    "recipientId": "14069243754",
    "senderType": "phone",
    "senderId": "14068522589",
    "senderName": "Ann Dercover",
    "time": "2014-07-02 22:43:28",
    "messageStatus": "read",
    "deliveryMethod": "onnet"
  }
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [
```

```
],
  "now": "2014-07-02 22:43:45",
  "largestCount": 2,
  "smsCreditBalance": 0,
  "callingCreditBalance": 0,
  "numTextsSent": 0,
  "numTextsRec": 0,
  "inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "b5860bdea833df4231c31dfbecbedf0d",
      "messageType": "normal",
      "messageText": "What day?",
      "recipientType": "phone",
      "recipientId": "14068522589",
      "senderType": "phone",
      "senderId": "14069243754",
      "senderName": "Kim Ill-song",
      "time": "2014-07-02 22:43:44",
      "messageStatus": "read",
      "deliveryMethod": "onnet"
    }
  ],
  "sentMessages": [

  ],
  "brandedSystemMessages": [

  ],
  "calls": [

  ],
  "voicemails": [

  ],
  "now": "2014-07-02 22:43:45",
  "largestCount": 1,
  "smsCreditBalance": 0,
  "callingCreditBalance": 0,
```

```
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [

  ],
  "sentMessages": [

  ],
  "brandedSystemMessages": [

  ],
  "calls": [

  ],
  "voicemails": [

  ],
  "now": "2014-07-02 22:43:45",
  "largestCount": 0,
  "smsCreditBalance": 0,
  "callingCreditBalance": 0,
  "numTextsSent": 0,
  "numTextsRec": 0,
  "inviteCount": 0
}
}
"supportedMessages": [
  "bsm"
]
}
"success": "messages retrieved",
"result": {
  "recMessages": [
    {
      "messageId": "b5860bdea833df4231c31dfbecbedf0d",
      "messageType": "normal",
      "messageText": "What day?",
      "recipientType": "phone",
```

```
"recipientId": "14068522589",
"senderType": "phone",
"senderId": "14069243754",
"senderName": "Kim Ill-song",
"time": "2014-07-02 22:43:44",
"messageStatus": "read",
"deliveryMethod": "onnet"
},
],
"sentMessages": [
{
"messageId": "3ceeadc119a0225656c73b3fbfd3418f",
"messageType": "normal",
"messageText": "I told you to pay attention.",
"recipientType": "phone",
"recipientId": "14069243754",
"senderType": "phone",
"senderId": "14068522589",
"senderName": "Ann Dercover",
"time": "2014-07-02 22:50:32",
"messageStatus": "read",
"deliveryMethod": "onnet"
}
],
"brandedSystemMessages": [

],
"calls": [

],
"voicemails": [

],
"now": "2014-07-02 22:50:45",
"largestCount": 1,
"smsCreditBalance": 0,
"callingCreditBalance": 0,
"numTextsSent": 0,
"numTextsRec": 0,
"inviteCount": 0
}
}
```

Geocoding packets from wireshark to CSV

```
"No.", "Time", "Source", "Destination", "Protocol", "Length", "Info"
"7087", "424.397103", "192.168.1.5", "207.200.102.1", "HTTP", "258", "GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
```

```
gzb0&inFormat=kvp&outFormat=json&location=46.85661315917969%2C-  
114.01860809326172 HTTP/1.1 "  
"7349","428.309472","192.168.1.5","207.200.102.1","HTTP","255","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.85693359375%2C-  
114.01863098144531 HTTP/1.1 "  
"7577","430.891308","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.85727310180664%2C-  
114.01868438720703 HTTP/1.1 "  
"7790","434.185345","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.857601165771484%2C-  
114.01866912841797 HTTP/1.1 "  
"7897","438.492045","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.858055114746094%2C-  
114.01866149902344 HTTP/1.1 "  
"7982","440.028336","192.168.1.5","207.200.102.1","HTTP","257","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.8582878112793%2C-  
114.01864624023438 HTTP/1.1 "  
"8140","442.411987","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.858524322509766%2C-  
114.01863861083984 HTTP/1.1 "  
"8260","445.148333","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.858734130859375%2C-  
114.01864624023438 HTTP/1.1 "  
"8333","445.431337","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.85884475708008%2C-  
114.01864624023438 HTTP/1.1 "  
"8425","445.836687","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.858943939208984%2C-  
114.01864624023438 HTTP/1.1 "  
"8516","446.670234","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.859046936035156%2C-  
114.01864624023438 HTTP/1.1 "  
"8610","448.630310","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.85914993286133%2C-  
114.01864624023438 HTTP/1.1 "
```



```
"8714","451.796770","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.859466552734375%2C-
114.01864624023438 HTTP/1.1 "
"8788","452.048548","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.85957717895508%2C-
114.01864624023438 HTTP/1.1 "
"8899","452.948538","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.85969161987305%2C-
114.01864624023438 HTTP/1.1 "
"9080","454.066550","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.85980987548828%2C-
114.01864624023438 HTTP/1.1 "
"9177","455.137429","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.85993194580078%2C-
114.01864624023438 HTTP/1.1 "
"9286","458.446295","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86029052734375%2C-
114.01863098144531 HTTP/1.1 "
"9374","460.409459","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86052322387695%2C-
114.01863861083984 HTTP/1.1 "
"9473","462.150637","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.860755920410156%2C-
114.01863098144531 HTTP/1.1 "
"9567","463.990485","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86098861694336%2C-
114.01863098144531 HTTP/1.1 "
"9663","466.047194","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.861228942871094%2C-
114.01863861083984 HTTP/1.1 "
"9758","467.567998","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86147689819336%2C-
114.01863098144531 HTTP/1.1 "
"9871","469.731793","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
```

```
gzb0&inFormat=kvp&outFormat=json&location=46.86159896850586%2C-  
114.01863098144531 HTTP/1.1 "  
"10000","472.100544","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86183547973633%2C-  
114.01862335205078 HTTP/1.1 "  
"10043","472.789075","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.862064361572266%2C-  
114.01861572265625 HTTP/1.1 "  
"10133","474.840279","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.862281799316406%2C-  
114.01860046386719 HTTP/1.1 "  
"10229","476.813205","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86248779296875%2C-  
114.01860046386719 HTTP/1.1 "  
"10317","478.421735","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86260223388672%2C-  
114.01859283447266 HTTP/1.1 "  
"10552","480.291389","192.168.1.5","207.200.102.1","HTTP","257","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86282730102539%2C-  
114.0185775756836 HTTP/1.1 "  
"10646","482.083307","192.168.1.5","207.200.102.1","HTTP","257","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86306381225586%2C-  
114.0185775756836 HTTP/1.1 "  
"10747","483.866181","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86330032348633%2C-  
114.01856231689453 HTTP/1.1 "  
"10843","485.082151","192.168.1.5","207.200.102.1","HTTP","255","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.863426208496094%2C-  
114.0185546875 HTTP/1.1 "  
"10955","486.587657","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86355209350586%2C-  
114.01854705810547 HTTP/1.1 "  
"11047","487.350725","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86367416381836%2C-  
114.01853942871094 HTTP/1.1 "
```

```
"11142","488.219219","192.168.1.5","207.200.102.1","HTTP","257","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.8637809753418%2C-
114.01853942871094 HTTP/1.1 "
"11239","489.248421","192.168.1.5","207.200.102.1","HTTP","257","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86387252807617%2C-
114.0185317993164 HTTP/1.1 "
"11949","538.606644","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.863704681396484%2C-
114.01164245605469 HTTP/1.1 "
"12156","540.279622","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86370849609375%2C-
114.01163482666016 HTTP/1.1 "
"12383","542.725817","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864017486572266%2C-
114.01107025146484 HTTP/1.1 "
"12595","544.932316","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864044189453125%2C-
114.01074981689453 HTTP/1.1 "
"12763","546.463833","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86404800415039%2C-
114.01071166992188 HTTP/1.1 "
"12945","548.530566","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86408996582031%2C-
114.01042175292969 HTTP/1.1 "
"13135","550.207286","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86408996582031%2C-
114.01012420654297 HTTP/1.1 "
"13277","551.742654","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864078521728516%2C-
114.00962829589844 HTTP/1.1 "
"13376","553.179346","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864070892333984%2C-
114.0094223022461 HTTP/1.1 "
"13464","555.114211","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
```

```
gzb0&inFormat=kvp&outFormat=json&location=46.86406707763672%2C-  
114.00910186767578 HTTP/1.1 "  
"13555","556.406306","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86407470703125%2C-  
114.00875854492188 HTTP/1.1 "  
"13651","559.229346","192.168.1.5","207.200.102.1","HTTP","257","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86408233642578%2C-  
114.0084228515625 HTTP/1.1 "  
"13884","565.042119","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-  
114.0074691772461 HTTP/1.1 "  
"13975","566.918158","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.864044189453125%2C-  
114.00716400146484 HTTP/1.1 "  
"14073","569.049250","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.864044189453125%2C-  
114.00694274902344 HTTP/1.1 "  
"14169","571.129789","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86404800415039%2C-  
114.00680541992188 HTTP/1.1 "  
"14265","573.163967","192.168.1.5","207.200.102.1","HTTP","258","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.86405563354492%2C-  
114.00670623779297 HTTP/1.1 "  
"14361","575.602187","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-  
114.00662231445313 HTTP/1.1 "  
"14458","576.681149","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-  
114.00646209716797 HTTP/1.1 "  
"14547","578.683388","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-  
114.00627899169922 HTTP/1.1 "  
"14709","580.735637","192.168.1.5","207.200.102.1","HTTP","259","GET  
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-  
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-  
114.00605773925781 HTTP/1.1 "
```

```
"14807","582.347224","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-
114.00592803955078 HTTP/1.1 "
"14901","584.161308","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86405944824219%2C-
114.00563049316406 HTTP/1.1 "
"14999","586.367916","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86405944824219%2C-
114.00534057617188 HTTP/1.1 "
"15096","587.993204","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86405563354492%2C-
114.00506591796875 HTTP/1.1 "
"15192","589.946228","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-
114.00477600097656 HTTP/1.1 "
"15288","591.982801","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864051818847656%2C-
114.00452423095703 HTTP/1.1 "
"15409","594.803096","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864044189453125%2C-
114.0042724609375 HTTP/1.1 "
"15481","595.283713","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.864044189453125%2C-
114.00414276123047 HTTP/1.1 "
"15592","597.285802","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86404037475586%2C-
114.00392150878906 HTTP/1.1 "
"15987","600.731288","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.863983154296875%2C-
114.00354766845703 HTTP/1.1 "
"16084","604.790035","192.168.1.5","207.200.102.1","HTTP","257","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86393356323242%2C-
114.0035171508789 HTTP/1.1 "
"16181","606.859028","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
```

gzb0&inFormat=kvp&outFormat=json&location=46.86381912231445%2C-114.00352478027344 HTTP/1.1 "

"16268","608.668586","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.863643646240234%2C-114.0035400390625 HTTP/1.1 "

"16374","610.328544","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86354446411133%2C-114.00354766845703 HTTP/1.1 "

"16468","613.491811","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86325454711914%2C-114.00360107421875 HTTP/1.1 "

"16567","614.925542","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86309051513672%2C-114.00376892089844 HTTP/1.1 "

"16669","616.665236","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86293411254883%2C-114.00396728515625 HTTP/1.1 "

"16762","618.608186","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86286163330078%2C-114.00408172607422 HTTP/1.1 "

"16856","620.164335","192.168.1.5","207.200.102.1","HTTP","259","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.862701416015625%2C-114.00432586669922 HTTP/1.1 "

"16948","621.716922","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86253356933594%2C-114.00457763671875 HTTP/1.1 "

"17057","624.885665","192.168.1.5","207.200.102.1","HTTP","259","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.862361907958984%2C-114.00481414794922 HTTP/1.1 "

"17257","626.808213","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86210632324219%2C-114.00520324707031 HTTP/1.1 "

"17419","630.388711","192.168.1.5","207.200.102.1","HTTP","257","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.86183547973633%2C-114.0055923461914 HTTP/1.1 "

```
"17519","632.246429","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86166000366211%2C-
114.00584411621094 HTTP/1.1 "
"17612","634.075989","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86148452758789%2C-
114.00609588623047 HTTP/1.1 "
"17706","637.047433","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86122131347656%2C-
114.00647735595703 HTTP/1.1 "
"17797","638.988104","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86103057861328%2C-
114.00672912597656 HTTP/1.1 "
"17886","641.139213","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.860843658447266%2C-
114.00699615478516 HTTP/1.1 "
"17988","643.288021","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86065673828125%2C-
114.00727081298828 HTTP/1.1 "
"18090","646.268138","192.168.1.5","207.200.102.1","HTTP","257","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.86037063598633%2C-
114.0076675415039 HTTP/1.1 "
"18372","650.348977","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.859989166259766%2C-
114.00820922851563 HTTP/1.1 "
"18473","651.583456","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.85979080200195%2C-
114.00848388671875 HTTP/1.1 "
"18568","653.419694","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.85969161987305%2C-
114.00862121582031 HTTP/1.1 "
"18664","654.970810","192.168.1.5","207.200.102.1","HTTP","259","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
gzb0&inFormat=kvp&outFormat=json&location=46.859500885009766%2C-
114.00887298583984 HTTP/1.1 "
"18774","657.116963","192.168.1.5","207.200.102.1","HTTP","258","GET
/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-
```

gzb0&inFormat=kvp&outFormat=json&location=46.85930252075195%2C-114.00914001464844 HTTP/1.1 "

"18857","658.546607","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85910415649414%2C-114.00941467285156 HTTP/1.1 "

"18957","660.189901","192.168.1.5","207.200.102.1","HTTP","256","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.8590087890625%2C-114.0095443725586 HTTP/1.1 "

"19058","661.884661","192.168.1.5","207.200.102.1","HTTP","259","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.858829498291016%2C-114.00979614257813 HTTP/1.1 "

"19156","663.769176","192.168.1.5","207.200.102.1","HTTP","259","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.858646392822266%2C-114.01005554199219 HTTP/1.1 "

"19251","667.246156","192.168.1.5","207.200.102.1","HTTP","259","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.858375549316406%2C-114.01044464111328 HTTP/1.1 "

"19438","670.339151","192.168.1.5","207.200.102.1","HTTP","259","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.858123779296875%2C-114.01079559326172 HTTP/1.1 "

"19538","671.961800","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85795211791992%2C-114.01103973388672 HTTP/1.1 "

"19651","673.993840","192.168.1.5","207.200.102.1","HTTP","257","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.8577880859375%2C-114.01127624511719 HTTP/1.1 "

"19735","675.963904","192.168.1.5","207.200.102.1","HTTP","257","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85765838623047%2C-114.0114517211914 HTTP/1.1 "

"19848","679.641693","192.168.1.5","207.200.102.1","HTTP","259","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.857513427734375%2C-114.01164245605469 HTTP/1.1 "

"19929","681.683639","192.168.1.5","207.200.102.1","HTTP","258","GET/geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85749053955078%2C-114.01168823242188 HTTP/1.1 "

"20021","683.642890","192.168.1.5","207.200.102.1","HTTP","258","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85747146606445%2C-114.01171112060547 HTTP/1.1 "

"20113","684.865143","192.168.1.5","207.200.102.1","HTTP","259","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.857418060302734%2C-114.01179504394531 HTTP/1.1 "

"20209","686.803298","192.168.1.5","207.200.102.1","HTTP","258","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85733413696289%2C-114.01190948486328 HTTP/1.1 "

"20299","688.757664","192.168.1.5","207.200.102.1","HTTP","259","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.857234954833984%2C-114.01204681396484 HTTP/1.1 "

"20388","690.395917","192.168.1.5","207.200.102.1","HTTP","259","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.857181549072266%2C-114.01212310791016 HTTP/1.1 "

"20496","692.301296","192.168.1.5","207.200.102.1","HTTP","258","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85708236694336%2C-114.01225280761719 HTTP/1.1 "

"20593","694.385845","192.168.1.5","207.200.102.1","HTTP","258","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85697937011719%2C-114.01237487792969 HTTP/1.1 "

"20686","696.541034","192.168.1.5","207.200.102.1","HTTP","259","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.856834411621094%2C-114.01256561279297 HTTP/1.1 "

"20915","699.002108","192.168.1.5","207.200.102.1","HTTP","258","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85672378540039%2C-114.01271057128906 HTTP/1.1 "

"21006","701.559168","192.168.1.5","207.200.102.1","HTTP","259","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.856597900390625%2C-114.01287078857422 HTTP/1.1 "

"21105","703.085192","192.168.1.5","207.200.102.1","HTTP","258","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-gzb0&inFormat=kvp&outFormat=json&location=46.85647201538086%2C-114.01302337646484 HTTP/1.1 "

"21214","705.741235","192.168.1.5","207.200.102.1","HTTP","259","GET /geocoding/v1/reverse?key=Cmjtd%7Cluua2qu2nd%2Cb5%3Do5-

```
gzb0&inFormat=kvp&outFormat=json&location=46.856319427490234%2C-114.01313018798828 HTTP/1.1 "
```

Cleaned-up Longitude and Latitudes in CSV

```
Longitude, Latitude
46.85693359375,-114.01863098144531
46.85727310180664,-114.01868438720703
46.857601165771484,-114.01866912841797
46.858055114746094,-114.01866149902344
46.8582878112793,-114.01864624023438
46.858524322509766,-114.01863861083984
46.858734130859375,-114.01864624023438
46.85884475708008,-114.01864624023438
46.858943939208984,-114.01864624023438
46.859046936035156,-114.01864624023438
46.85914993286133,-114.01864624023438
46.859466552734375,-114.01864624023438
46.85957717895508,-114.01864624023438
46.85969161987305,-114.01864624023438
46.85980987548828,-114.01864624023438
46.85993194580078,-114.01864624023438
46.86029052734375,-114.01863098144531
46.86052322387695,-114.01863861083984
46.860755920410156,-114.01863098144531
46.86098861694336,-114.01863098144531
46.861228942871094,-114.01863861083984
46.86147689819336,-114.01863098144531
46.86159896850586,-114.01863098144531
46.86183547973633,-114.01862335205078
46.862064361572266,-114.01861572265625
46.862281799316406,-114.01860046386719
46.86248779296875,-114.01860046386719
46.86260223388672,-114.01859283447266
46.86282730102539,-114.0185775756836
46.86306381225586,-114.0185775756836
46.86330032348633,-114.01856231689453
46.863426208496094,-114.0185546875
46.86355209350586,-114.01854705810547
46.86367416381836,-114.01853942871094
46.8637809753418,-114.01853942871094
46.86387252807617,-114.0185317993164
46.863704681396484,-114.01164245605469
46.86370849609375,-114.01163482666016
46.864017486572266,-114.01107025146484
46.864044189453125,-114.01074981689453
46.86404800415039,-114.01071166992188
46.86408996582031,-114.01042175292969
```

46.86408996582031,-114.01012420654297
46.864078521728516,-114.00962829589844
46.864070892333984,-114.0094223022461
46.86406707763672,-114.00910186767578
46.86407470703125,-114.00875854492188
46.86408233642578,-114.0084228515625
46.864051818847656,-114.0074691772461
46.864044189453125,-114.00716400146484
46.864044189453125,-114.00694274902344
46.86404800415039,-114.00680541992188
46.86405563354492,-114.00670623779297
46.864051818847656,-114.00662231445313
46.864051818847656,-114.00646209716797
46.864051818847656,-114.00627899169922
46.864051818847656,-114.00605773925781
46.864051818847656,-114.00592803955078
46.86405944824219,-114.00563049316406
46.86405944824219,-114.00534057617188
46.86405563354492,-114.00506591796875
46.864051818847656,-114.00477600097656
46.864051818847656,-114.00452423095703
46.864044189453125,-114.0042724609375
46.864044189453125,-114.00414276123047
46.86404037475586,-114.00392150878906
46.863983154296875,-114.00354766845703
46.86393356323242,-114.0035171508789
46.86381912231445,-114.00352478027344
46.863643646240234,-114.0035400390625
46.86354446411133,-114.00354766845703
46.86325454711914,-114.00360107421875
46.86309051513672,-114.00376892089844
46.86293411254883,-114.00396728515625
46.86286163330078,-114.00408172607422
46.862701416015625,-114.00432586669922
46.86253356933594,-114.00457763671875
46.862361907958984,-114.00481414794922
46.86210632324219,-114.00520324707031
46.86183547973633,-114.0055923461914
46.86166000366211,-114.00584411621094
46.86148452758789,-114.00609588623047
46.86122131347656,-114.00647735595703
46.86103057861328,-114.00672912597656
46.860843658447266,-114.00699615478516
46.86065673828125,-114.00727081298828
46.86037063598633,-114.0076675415039
46.859989166259766,-114.00820922851563
46.85979080200195,-114.00848388671875

```
46.85969161987305,-114.00862121582031
46.859500885009766,-114.00887298583984
46.85930252075195,-114.00914001464844
46.85910415649414,-114.00941467285156
46.8590087890625,-114.0095443725586
46.858829498291016,-114.00979614257813
46.858646392822266,-114.01005554199219
46.858375549316406,-114.01044464111328
46.858123779296875,-114.01079559326172
46.85795211791992,-114.01103973388672
46.8577880859375,-114.01127624511719
46.85765838623047,-114.0114517211914
46.857513427734375,-114.01164245605469
46.85749053955078,-114.01168823242188
46.85747146606445,-114.01171112060547
46.857418060302734,-114.01179504394531
46.85733413696289,-114.01190948486328
46.857234954833984,-114.01204681396484
46.857181549072266,-114.01212310791016
46.85708236694336,-114.01225280761719
46.85697937011719,-114.01237487792969
46.856834411621094,-114.01256561279297
46.85672378540039,-114.01271057128906
46.856597900390625,-114.01287078857422
46.85647201538086,-114.01302337646484
46.856319427490234,-114.01313018798828
```

Generated KML for location

```
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://earth.google.com/kml/2.0">
<Document>
<Placemark>
<Point><coordinates>-114.01863098144531 ,46.85693359375,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01868438720703
,46.85727310180664,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01866912841797
,46.857601165771484,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01866149902344
,46.858055114746094,0</coordinates></Point>
</Placemark>
<Placemark>
```

```
<Point><coordinates>-114.01864624023438
,46.8582878112793,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01863861083984
,46.858524322509766,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.858734130859375,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.85884475708008,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.858943939208984,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.859046936035156,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.85914993286133,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.859466552734375,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.85957717895508,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.85969161987305,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.85980987548828,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01864624023438
,46.85993194580078,0</coordinates></Point>
</Placemark>
```

```
<Placemark>
<Point><coordinates>-114.01863098144531
,46.86029052734375,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01863861083984
,46.86052322387695,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01863098144531
,46.860755920410156,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01863098144531
,46.86098861694336,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01863861083984
,46.861228942871094,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01863098144531
,46.86147689819336,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01863098144531
,46.86159896850586,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01862335205078
,46.86183547973633,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01861572265625
,46.862064361572266,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01860046386719
,46.862281799316406,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01860046386719
,46.86248779296875,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01859283447266
,46.86260223388672,0</coordinates></Point>
```

```
</Placemark>
<Placemark>
<Point><coordinates>-114.0185775756836
,46.86282730102539,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0185775756836
,46.86306381225586,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01856231689453
,46.86330032348633,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0185546875 ,46.863426208496094,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01854705810547
,46.86355209350586,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01853942871094
,46.86367416381836,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01853942871094
,46.8637809753418,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0185317993164
,46.86387252807617,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01164245605469
,46.863704681396484,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01163482666016
,46.86370849609375,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01107025146484
,46.864017486572266,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01074981689453
,46.864044189453125,0</coordinates></Point>
```

```
</Placemark>
<Placemark>
<Point><coordinates>-114.01071166992188
,46.86404800415039,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01042175292969
,46.86408996582031,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01012420654297
,46.86408996582031,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00962829589844
,46.864078521728516,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0094223022461
,46.864070892333984,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00910186767578
,46.86406707763672,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00875854492188
,46.86407470703125,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0084228515625
,46.86408233642578,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0074691772461
,46.864051818847656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00716400146484
,46.864044189453125,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00694274902344
,46.864044189453125,0</coordinates></Point>
</Placemark>
<Placemark>
```



```
<Point><coordinates>-114.00680541992188
,46.86404800415039,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00670623779297
,46.86405563354492,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00662231445313
,46.864051818847656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00646209716797
,46.864051818847656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00627899169922
,46.864051818847656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00605773925781
,46.864051818847656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00592803955078
,46.864051818847656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00563049316406
,46.86405944824219,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00534057617188
,46.86405944824219,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00506591796875
,46.86405563354492,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00477600097656
,46.864051818847656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00452423095703
,46.864051818847656,0</coordinates></Point>
</Placemark>
```

```
<Placemark>
<Point><coordinates>-114.0042724609375
,46.864044189453125,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00414276123047
,46.864044189453125,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00392150878906
,46.86404037475586,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00354766845703
,46.863983154296875,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0035171508789
,46.86393356323242,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00352478027344
,46.86381912231445,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0035400390625
,46.863643646240234,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00354766845703
,46.86354446411133,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00360107421875
,46.86325454711914,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00376892089844
,46.86309051513672,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00396728515625
,46.86293411254883,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00408172607422
,46.86286163330078,0</coordinates></Point>
```

```
</Placemark>
<Placemark>
<Point><coordinates>-114.00432586669922
,46.862701416015625,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00457763671875
,46.86253356933594,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00481414794922
,46.862361907958984,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00520324707031
,46.86210632324219,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0055923461914
,46.86183547973633,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00584411621094
,46.86166000366211,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00609588623047
,46.86148452758789,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00647735595703
,46.86122131347656,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00672912597656
,46.86103057861328,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00699615478516
,46.860843658447266,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00727081298828
,46.86065673828125,0</coordinates></Point>
</Placemark>
<Placemark>
```

```
<Point><coordinates>-114.0076675415039
,46.86037063598633,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00820922851563
,46.859989166259766,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00848388671875
,46.85979080200195,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00862121582031
,46.85969161987305,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00887298583984
,46.859500885009766,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00914001464844
,46.85930252075195,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00941467285156
,46.85910415649414,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0095443725586 ,46.8590087890625,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.00979614257813
,46.858829498291016,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01005554199219
,46.858646392822266,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01044464111328
,46.858375549316406,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01079559326172
,46.858123779296875,0</coordinates></Point>
</Placemark>
<Placemark>
```

```
<Point><coordinates>-114.01103973388672
,46.85795211791992,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01127624511719
,46.8577880859375,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.0114517211914
,46.85765838623047,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01164245605469
,46.857513427734375,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01168823242188
,46.85749053955078,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01171112060547
,46.85747146606445,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01179504394531
,46.857418060302734,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01190948486328
,46.85733413696289,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01204681396484
,46.857234954833984,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01212310791016
,46.857181549072266,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01225280761719
,46.85708236694336,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01237487792969
,46.85697937011719,0</coordinates></Point>
</Placemark>
```

```
<Placemark>
<Point><coordinates>-114.01256561279297
,46.856834411621094,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01271057128906
,46.85672378540039,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01287078857422
,46.856597900390625,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01302337646484
,46.85647201538086,0</coordinates></Point>
</Placemark>
<Placemark>
<Point><coordinates>-114.01313018798828
,46.856319427490234,0</coordinates></Point>
</Placemark>
</Document>
</kml>
```